ON05800

WORKING PAPERS OF PLANNING AND DEVELOPMENT RESEARCH

87-4

EXTERNAL ENVIRONMENT PAPERS

Project leader: Judith Tobin

Researchers: Thelma Berris, Sandra Campbell, Francine Lecoupe and Donna Sharon

June 1986

92-07227/

TVOntario

Planning and Development Research
Planification et recherche en développement

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EXTERNAL ENVIRONMENT PAPERS

Introduction

The next section is a series of external environment papers presenting the major trends and themes in education, broadcasting, demographics, government policy and programs, and technology. The difficulty of forecasting the future is evident in the limitations of these papers. They cannot claim to be comprehensive or unbiased and only time can tell their significance or correctness. However, they are a compilation of the opinions and understandings of those who work in, plan for, and study the various fields. All sources are footnoted in each paper.

The predictions in some of the papers are contradictory as there is no consistent opinion about what is happening, much less what **will** happen technologically, in policy development, or other fields. Therefore, the papers do not provide answers or conclusions but reflect the uncertainty of the environments in which TVOntario operates.

These papers were designed to stimulate discussion relevant to the future of TVOntario. Each one begins with a summary of the developments judged to have the most significance for TVO in the next five years. The remainder of each paper provides detail on these issues as well as additional potential developments. There may be agreement or disagreement with the inclusion and exclusion of issues, on the interpretation or weight given to them. As a preparatory step to strategic planning, it is important that this consideration takes place.

The Office of Development Research has compiled these papers. While the opinions expressed are not necessarily those of the authors, we take responsibility for the selection of the content.

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SOCIOECONOMIC AND DEMOGRAPHIC ENVIRONMENT

Major Challenges for TVOntario

The changes in the Ontario population as it ages and becomes more ethnically mixed, resulting in populations with different educational needs and expectations for programming.

The shift to service employment as major source of employment and the centre of Ontario's economy and job creation programs.

The changing educational needs of new family structures and the workplace.

Demography

- Between 1988-1990, population growth will slow from 1.2% to 1.1% per year. The actual increase between 1987 and 1990 will be 304,000 people, bringing Ontario's population to 9,593,000. The only age group to decline in this period will be young adults 15-24.[1]

Ontario Population
(Thousands)

Age	1987	1990	% Change
0-4	651	660	2.3
5-14	1,248	1,272	1.9
15-24	1,508	1,398	- 7.3
25-39	2,345	2,459	4.9
40-49	1,137	1,278	12.4
50-64	1,358	1,373	1.1
65-74	626	680	8.6
75+	416	467	12.3
Total[1]	9,289	9,593	3.3

- The most recent census figures (1981) indicate that 23.7% of Ontario's population was born outside Canada and that 17.2% have a mother tongue other than English or French. While people of British and French origin are the largest ethnic populations, groups over 100,000 included (from largest to smallest) Italian, German, Dutch, Ukranian, Jewish, Portugese, Polish, and Chinese.[4]

- Ontario will continue to receive approximately half of the increasing number of immigrants to Canada with more than 60% coming from Asia, the West Indies, and other developing countries making the province increasingly multicultural and cross-cultural in character.

- Ontario's francophone population included 467,910 people reporting French as their mother tongue. While francophones make up less than two percent of residents in central Ontario, they represent over 25% of the population in northeastern Ontario.

Region	Number	% of Region	% of Franco-Ontarians
East	181,380	15.3	38.8
Northeast	149,630	25.6	32.0
Centre	91,985	1.7	19.6
Southwest	35,110	2.8	7.5
Northwest	9,805	4.2	2.1
Ontario Total[7]	467,910	5.5	100.0

- Among the native people, Ontario has the highest Indian population in Canada--about 22% of the total number of approximately 349,000 or about 77,000. There are 185 reserves and settlements in Ontario (1985). By 1996, about 90,000 registered Indians (not including Metis or non-status Indians) are expected to be living on reserves and in large bands (1,000-3,000 population) in Ontario.[5] Registered Indians are working toward self-government and re-instatement in bands.

- Indian education is now increasingly under the control of Indian communities. Attempts are being made to make the curriculum more relevant to their lives and to use Indian languages in teaching. Indian teachers are now common in the classroom. Women by and large continue their education longer than men, especially on the rural reserves, and work in the managerial, technical, and professional as well as service occupations.[5]

The Economy

- The optimistic projections offered by the Ontario Ministry of Treasury and Economics should be tempered by the less rosy predictions from the Conference Board of Canada. Forecasts from the Ontario Ministry indicate that increases in U.S. protectionism will be avoided; that a free trade agreement with the U.S. will not be reached; that the Canadian dollar will not appreciate sharply; that real interest rates will fall from 7.5% above inflation in 1984 to 5.0% in 1987, and on down to historically more normal levels near 3.5% in 1990; and that inflation which was 4% in 1986 will remain relatively stable averaging 3.9% over the period 1988-1990. The international economy will continue to expand with more balance among the U.S., Europe, and Japan. These projections assume a moderate real growth of 3% annually in the U.S., a budget deficit and continuing declining U.S. interest rates resulting in steady growth of investment and consumption.[1]

- In contrast to the optimism of the Ontario treasurer, the Conference Board of Canada predicts that later in 1987 interest rates will begin to rise and that in 1988 economic growth will slow to 1.8%.[2]

- Primary sector (agriculture, mining and forestry industries) and resource-based manufacturing industries (pulp, paper, wood products, metal fabricating, petroleum, refining) will continue to show little growth. While some improvement is expected to 1990 in resource-based manufacturing, the growth rate (2.4%) will still be below the average for manufacturing or for the economy as a whole (3.1%). Moderate growth will be maintained in motor vehicle assembly, in aerospace industry, electronics and electrical products, and printing and publishing.[1]

Employment

- In Ontario the service sector (i.e., all economic activity other than primary industries and manufacturing) currently accounts for 73% of employment, 77% of GDP, and also accounts for an estimated 80% of all new jobs that will be created to 1996. Ontario can no longer look to manufacturing as a major source of future new employment especially as robotics, CAD and CAM grow.[6]

- The service sector will continue to be Ontario's major source of employment growth. Aside from public administration, the major industry groupings within the service sector include retail trade (employing 13.9% of service sector workers in 1985); health and welfare (9.4%); education (8.9%); wholesale trade (6.5%); accommodation and food (6.4%); business services (6.2%); and transportation (4.4%). Service sector growth is expected to be strongest in the areas of financial, legal, accounting, advertising, and computer and specialized information-related services. Health, personal care, recreation, education, and household services will also be above average growth areas.[1]

- Blue collar workers now represent a smaller proportion of the workforce than 10 years ago (just over four million people, or one-third of the Canadian workforce).

- According to the Ontario Ministry of Treasury and Economics, unemployment will go down from 9.7% in 1986 to 5.5% by 1990. Job creation in Ontario is forecast to continue at a strong pace with an average of over 100,000 jobs created each year from 1988 to 1990.[1]

- There will be a continuing attempt to improve the job opportunities in Northern Ontario. Despite this, regional disparities in income and levels of affluence will continue.

- By 1995, 57% of women age 15 and over will be participating in the labour force. This is related to the growth of service sector occupations, many of which are dominated by women workers. The Canadian service sector is expected to generate almost 1.9 million new jobs by 1995, or three-quarters of all new jobs.[3]

- By 1996, women will have 49.5% of all paid jobs in Canada.[10] This raises issues of pay and employment equity.

- Part-time employment in Canada increased 40% between 1974 and 1984. The number of part-time workers is expected to decrease to the year 2000 as there will be fewer young workers and more baby boom women entering their child-bearing years when labour force participation declines.[5]

- By 1995, 20% of work will be done at home. This will increase the load on telecommunications.[8]

- New jobs will be created through specialized application of knowledge. Educating and training the workforce is considered to be of strategic importance by the Ontario government.[6]

- The Ontario government will increasingly recognize and support the learning and training needs of adults through the Ontario Training Strategy, a focus on basic literacy for disadvantaged groups, and by an increase in funding for post-secondary education.

Consumer Spending

- The trend to spending on recreation, educational, and personal goods and services will likely continue. Between 1965 and 1985, these expenditures increased from 19% to 25% of consumer spending. By 2000, as much as 40% of disposable income will be spent on living a leisureful life. Canadians will spend the highest proportion of disposable income on restaurants and hotels (a projected yearly total of $108 billion), sports and camping ($70 billion), recreation services ($54 billion), and education and cultural services ($65 billion).[9]

- A continuing rise in the one-person household and the couple with both people in the paid labour force will result in changes in lifestyle including working and eating habits, and TV viewing times. The number of Canadian households is expected to grow by 2.7% per year to 1991 (to over 10.6 million) and to become 11.4 million by 1996.

- Retailing trends include a rise in franchise businesses, bulk purchasing, and a rise in "total information stores" (computer software, video material, and books sold in one store).

Continuing Social Change

- Family structures will continue to change as a result of the women's movement, technology, changes in the workplace, economic necessities, a rising divorce rate, and alterations in traditional gender roles. Such issues as day care, single parenthood, surrogate parenting, and child abuse will require ongoing public and private attention.

- Another group of issues that will require continuing attention over the next five years are those concerned with health, e.g., extension of chronic care facilities, facilities and volunteers for the handicapped, attention to drug and alcohol abuse, control

of AIDS, maintenance of quality of care in a changing health care system, decisions regarding bio-engineering, food additives, the environment, changes in forms of food production, and safe water. Differences of opinions, as well as group and individual entitlements will continue to make decision-making difficult and broad education essential.

- In the field of social welfare, the problems that need to be addressed are those of the homeless, the poor, income maintenance, group homes, family violence, and legal aid services.

- Immigration from Asia, the Caribbean, and Central America may create contentious issues around housing, jobs, schooling, community integration, and ethnic and racial prejudice.

- Education for the use of leisure time (whether forced or voluntary) will continue to be a need as will education for self-reliance and for getting along in and with the complexities and contradictions of society and utilizing its opportunities. Statistics Canada reports that watching TV is what 90% of people over the age of 14 do most as a leisure activity, while attending classes is a leisure activity of less than 20% of people.

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EDUCATION ENVIRONMENT

Major Challenges for TVO

MOE emphasis on measuring effectiveness that extends to schools, students' learning, and TVOntario services.

The continuing shift to the use of videotape rather than off-air broadcasts in the classroom.

Potential and existing MOE efforts in reducing drop-outs, in teacher training, problem-solving skills, media literacy, and computers in education.

Full funding of separate schools will have long-term impact on the educational system in Ontario.

Reduced and/or redirected audio-visual spending in education; lack of material for postsecondary education, and the expansion of private developers for training materials indicate shifting needs and markets for TVO product.

The new university environment that involves closer partnerships with government and industry, restricted funding, and a growing population of older, part-time, and distance students.

The collaborative and technologically-based efforts in post-secondary distance education evident in the government-funded Northern Ontario Distance Education Access Network.

The college environment of restricted budgets and growing competition for students and funding from private trainers and government supported training in the workplace.

The programs for literacy and skills training to ensure the viable future of Ontario's economy.

Business increasing emphasis on training may provide new opportunities for TVO products and services.

Kindergarten to Grade 13

Enrollment Trends

- Projections indicate that between 1984 and 1991 the Ontario school population will decrease about 3.5% from 1,750,000 to 1,690,000. In 1996, the school population will have dropped to about 1,665,000.[1]

MOE Directions: Curriculum

- Increasing efforts are being made to reduce the high school drop-out rate, now at 40%, and support high school students' transition to adulthood and employment. These efforts will include:

  - o $13 million to support the development of cooperative work-study programs, counselling, and job finding services from 1986-1989;

  - o two new credit courses in Grade 11 and 12 entrepreneurial skills;

  - o a one-year study of drop-outs and unemployed youth to make further recommendations;

  - o extra teacher training and support to improve students' reading and writing skills in the early grades.

- The emphasis on basic literacy and numeracy skills is broadening to include intellectual skills such as problem solving, decision making, independent learning. This is evident in MOE guidelines and increasingly in new testing and evaluation instruments. Use of teaching strategies designed for small groups and individual self-directed learning will grow.

- Classroom discussion of the media and student involvement in video production will increase as a result of recent English curriculum guidelines and the K-12 Media Literacy support document scheduled for distribution this summer. Increased home use of VCRs and portable cameras will support this trend.

- Concern with race relations and equal opportunity for all students is growing. This spring, a race relations advisory committee is scheduled to submit recommendations for Ministry consideration and a race relations policy for consideration by interested boards.[2]

MOE Directions: Policy

- With the passage of Bill 30, funding for Roman Catholic Separate Schools was extended to include Grade 11 students in 1985-1986, Grade 12 students in 1986-1987, and Grade 13 students in 1987-1988. The shift of Catholic high school students has been progressing in a gradual way while programs are being developed, buildings are being transferred, and distribution of commercial and industrial taxes are being reconsidered. The tensions

involved in the transition vary greatly from one community to the next. Within the next 10 years, as many as 100,000 or 35% of Ontario students in Grades 11 to 13 may be attending Roman Catholic Separate Schools.

- In light of Bills 30 and 75, changes in the governance of French schools and Catholic secondary schools are under consideration. Indications of educational priorities and proposals for reform are expected in the coming months.

- An announcement is expected in Spring 1987 about the introduction of limited funding support for the growing number of private or independent schools which in 1984 enrolled 4.7% of Ontario students.[5]

- Support for school age day care and for preschool programs in schools is increasing. Announcements about space in schools and funding are expected in Spring 1987.

- The Ministry has emphasized the need to assess school effectiveness via students' achievement. A return to standardized universal testing at different levels is being considered but opposition is strong. Instead, extensive testing of samples of students is being planned to establish baselines for an ongoing testing program. The Ontario Assessment Instrument Pool will be expanded for this program. More publications such as the Handbook for Designing and Marking the OAC1 Written Exam in English can be expected, hopefully leading to more comparable grades for graduates from different schools.[3]

- The recent position paper on teacher education is likely to lead to growing teacher professionalism based on substantial changes in teacher training and certification. Teachers' aides will be hired so that teachers can play a greater role in curriculum development and giving and receiving inservice training. The position paper includes proposals for closer TVOntario involvement with schools and teacher education.[4]

- Once curriculum guidelines are issued, MOE relies on boards and regional offices for curriculum development. This creates an overload, especially in small northern school boards which find the continuous demands of new guidelines overwhelming. Sharing and exchange among boards are increasing with Ministry encouragement.

- Changes in funding to school boards may be introduced to pool commercial/industrial tax revenues on a provincial basis. This would reduce local autonomy and encourage greater centralization of decision making.[6]

- New government policies concerning continuing and adult basic education are being developed by the Ministries of Skill Development, Colleges and Universities, and MOE. School boards' role in continuing and adult basic education is likely to decline as a result. (Expenditures in 1983 totalled $30.3 million.)[7]

- The Learning Materials Development Plan that funds proposals from publishers and AV producers is being scrutinized concerning the use and impact of the materials produced.[3]

- Replacing Deputy Minister George Podrebarac with Bernard Shapiro and the recent MOE reorganization indicate growing emphases on policy development, on making school boards accountable for their students' achievements, on lowering the high school drop-out rates, and on improving primary school literacy rates. Moving the Computers in Education area under the Learning Programs Branch, headed by Duncan Green, indicates a less aggressive approach to the role of technology in schools. However, Green's upcoming retirement and Lorne Smith's tentative status as Acting Director of the Computers in Education area make the future very uncertain.

Educational Video/Technology

- Although Market Research studies from 1975 to 1985 don't document a substantial increase in classroom use of video, VIPS sales and sales of teacher guides have been higher than expected and School Utilization has received a growing number and variety of workshop requests. Along with reports from teachers and media coordinators, these indicators suggest that classroom use of video is growing and will continue growing from 1985 levels when 59% of elementary teachers and 51% of secondary school teachers were current or recent TV users.[8]

- Increasing use of VCRs at home and in school, combined with growing interest in media studies and in teacher training will likely improve the quality as well as quantity of use.

- Off-air use will continue to decline. In 1985, only 8% of TV-using elementary school teachers relied solely on off-air broadcasts compared to 27% in 1982. However, off-air taping, done primarily at home, was reported by 13% of elementary videotape users and 16% of secondary school users in 1985 compared to 3% of each in 1982.[9]

- Although total AV budgets are not increasing, videocassettes account for a growing proportion of expenditures on school AV materials—jumping from 32% of sales in 1984 to 42% in 1985.[10]

- A 1985 survey of school board media centres or consultants sent by the Province of Ontario Media Association (POMA) attracted responses from only 20 of over 120 boards in Ontario. However, in these boards an average of 3,000 programs were duplicated annually and an average of 6,170 TVO programs were circulated accounting for 97% of the total video material circulated.

- In September 1986, there were 11,200 ICON work stations and 1,500 file servers in Ontario schools. Burrough's estimates these figures have now reached 16,000 work stations and 2,000 file servers. While they expect the ratio of file servers to decrease from 8:1 to 16:1, they expect the number of work stations to increase to 24,000, 36,000 and 51,000 over the next three years

unless MOE subsidies are lowered.[11] Present plans for growing computer use in communications, distance education, and individual student assessment may change with MOE policy or personnel changes. Among the computer inventories reported by 18 boards in the 1985 POMA Survey, ICONs account for 17% or 866.

- Expectations for the next two to three years include establishment of computer networks, 32-bit microcomputers and 1 megabyte memories, CD-ROM databases, a shift toward colour monitors, and more sophisticated animation capabilities. Four to five years from now, enhanced networking, cheap high-quality printing, and possibly a merging of CD-ROM and videodisc standards will be found. Beyond five years, generally enhanced microcomputer capacities and users who see the micro as an appliance are expected.[12]

Postsecondary

Universities: Funding

- While the decline in provincial funding to universities has been reversed for the first time in 10 years by an 11.5% increase in operating grants for 1987-1988, and the distribution of these grants will no longer be adversely affected by minor enrollment fluctuations, universities will still be required to operate with austerity and innovation to stretch funding dollars. However, the $37 million announced in 1986-1987 for university teaching equipment and library acquisitions may have a positive impact on the ability of these institutions to increase the utilization of video in teaching.[1]

- New federal and provincial funding policies and strategies which will operate for the next three to five years will require the universities to develop and maintain cooperative and collaborative research and development ventures with business and industry. These funding strategies reflect government policy to build economic prosperity through the development of scientific knowledge and its application to new industries that are internationally competitive. The University Research Incentive Fund will commit $25 million in the next three years to joint projects and the Technology Incentive Fund will commit $1 billion over the next five years to collaborative projects. There is some concern that these funding strategies may lead to a greater degree of institutional specialization and that liberal arts subjects may be neglected.[2]

Universities: Enrollment

- At the national level, full-time university participation has steadily increased in the last eight years and a decline is not expected. The number of full-time students has increased by 29% (367,000-473,000) over the last eight years.[3]

- In Ontario, 6% more Grade 13 students are applying for the fall of 1987 than in the previous year but the Grade 13 cohort is smaller than in previous years. It is expected that between 1988-1991, there could be a 25% larger undergraduate body because of the implementation of the Ontario Academic Credit (OAC) system which allows students the option of completing high school in four years instead of five.[4]

- The trend towards gradually increasing numbers of full-time enrollments in graduate school is continuing in 1986-1987 which saw a 3% increase.[5]

- Between 1977 and 1985 participation in part-time credit enrollment in Ontario increased 29% and this growth is expected to continue. The highest participation rates and the greatest magnitude of increase are expected to occur in the 25-44 age group.[6]

- Foreign student enrollment has declined by 28% over the last three years as the numbers across Canada have gone from 36,000 in 1983-1984 to 26,000 in 1986-1987. This decline is expected to continue due to the fee surcharge on foreign student enrollment.[7]

Universities: Video

- Informal discussions with directors of audiovisual departments in Ontario universities indicates that despite financial restraints and equipment shortages (that may be offset by the new $37 million funds available for teaching equipment), the desire to use video in teaching is growing but there is a real shortage of content.[8]

Universities and Colleges: Distance Education

- While student enrollment numbers are not available, distance education has experienced a slow but steady growth with 10 out of 29 universities and 13 out of 22 colleges offering credit courses in the distance mode. However, really significant growth is not expected unless and until issues such as interinstitutional recognition of credits, student access to resources, and new funding structures for high development costs are resolved.[9]

- In the next four years, there will be an expansion of distance education opportunities in northern Ontario due to the establishment of the Northern Ontario Distance Education Access Network (NODEAN) which begins operation in September 1987 and will be funded until 1991. During this time, $2 million annually will be available for planning and development of the project plus $3 million annually for establishing and maintaining the technologies and network setups. In March 1987, 24 distance education content development projects worth $1,241,205 were approved for development by postsecondary institutions.[10]

Universities and Colleges: Francophone Education

- As a result of Bill 8 and the Churchill-Frenette report, a position has been created at the Ministry of Colleges and Universities at the assistant deputy minister level to ensure francophone representation in policy and planning. Further to that, the Conseil de l'education franco-ontarienne is in the process of developing a "Plans directeur de l'education franco-ontarienne" to be released in June. Other francophone groups, such as the Association Canadienne française de l'Ontario, are developing educational plans for the University and college levels.[11]

- In the next five years, the Ministry of Colleges and Universities will almost double its spending ($24 million to $42 million) to make it easier for Franco-Ontarians to study in French.[12]

Community Colleges: Funding

- The Ontario government has increased base operating funds to the colleges by 17.7% since 1985 and has allocated $39 million annually to the colleges for delivery of specific aspects of its Training Strategy. However, new federal and provincial strategies for employment training now permit private institutions to compete with the colleges for training dollars and this may lead to a reduction in the colleges' operating funds. At the present time, the colleges are predicting a decrease of at least 5% per year in federal direct purchase of training because of the Canada/Ontario Training agreement signed in 1986 and effective until 1989.[13]

- The provincial Technology Incentive Fund of $1 billion which will be available over the next five years may provide funds to the colleges for innovative, collaborative ventures with business and industry which apply new technologies to the solution of business needs or to facilitate technology transfer.[14]

- There is some belief that the new faculty workload agreements put into place in September 1986 will have an adverse affect on the colleges ability to compete with private sector trainers for industrial training contracts as the agreement considerably reduces the colleges flexibility to respond quickly to training requests. A similar workload agreement for part-time faculty is expected in the near future.[15]

Community Colleges: Enrollment

- Full-time enrollment for the 18-21 cohort will decline. This decline may be offset by an increase in full-time enrollment of those 25-44 or by really significant increases in part-time enrollment. While no projections are available on this at the present time, part-time registrations in the colleges have increased from approximately 500,000 in 1983-1984 to 700,000 in 1986-1987.[16]

- Registrations in the technology areas have been declining over the last five years and this is expected to continue while registrations in business and human service subject areas are expected to continue to increase.[16]

- New college governing structures have been instituted in the last year. The changes will provide for greater participation by student, faculty, administrative staff, and local community people in the Board of Governors. In addition, 11 out of 22 college presidents will retire in the next 18 to 24 months.[15]

Continuing Education

Enrollment

- The most recent (1983) survey information on adult continuing education in the country shows that one in five adults (1,157,900 in Ontario) participated in adult education which demonstrated an increase from one in 20 in 1960. Overall, job-related training was most popular. Personal development courses ranked second, followed by the hobby category and academic instruction.[1]

- Older adults are increasingly participating in adult education activities. There is an increase in organizations specifically established to meet the needs of this group such as Third Age Learning Associates and Elderhostel and the participation in these organizations is growing as well.[4]

- Largely due to the politically sanctioned absence of French language schools when they were growing up, about one third of franco-ontarian adults (25-64) has less than Grade 9 education (functionally illiterate). In the very long term, the situation will probably improve since young franco-ontarians have a better opportunity to be educated in French from kindergarten to the end of high school, unlike their parents and grandparents.[3]

- In 1986, Statistics Canada conducted an Adult Training Survey which excluded people who took courses for personal interest rather than employment-related reasons. At the present time, no decision has been made whether this information will be prepared for general release.[2]

Training

- The fact that governments are now taking steps to monitor the private training industry, that there have been recommendations for the accreditation and licensing of trainers and that memberships in training professional associations have doubled in the last few years demonstrates that workplace training is a factor of growing importance.[5]

- A recent survey of international journals in business, management, personnel administration, and training and development revealed the following trends:

- o Management training at all levels will increase over the next three to five years;

- o Content aimed at specific business objectives, especially at the mid-management level will be favoured over broad, general programs;

- o Training in the use of computer-based information systems will be extremely pervasive as the ability to access and apply up-to-the-minute information systems is seen as a prerequisite for business competency;

- o Training for executives will have an increased emphasis on international trends and issues. Subjects of importance will be in three areas: (1) The basics of good management; (2) Human Relations; (3) Corporate Culture.[8]

Video

- While Canadian figures are not available, in the United States, there has been steady growth in the use of video as a communications and training tool in business. Organizations reporting participation in their own video program production and distribution have grown from 300 in 1974 to 8,500 in 1986. Its most common application is for skill training instruction.[9]

- A recent survey of 2,550 organizations in the United States indicated that videotapes were the instructional method used in 80.5% of cases which was exceeded only by lectures at 81.5%. Non-computerized independent study programs were used 27.6%; teleconferencing (audio/video) 23.9%; teleconferencing (audio only) 10.8%; and computer conferencing 3.4%.[10]

Funding

- The fact that provincial funding of training in the workplace has doubled in the last year and will be funded at $100 million per year until 1991 through the Ontario Training Strategy demonstrates this government's belief that training is a vital strategy for economic development and prosperity. This funding includes:

  - o $43 million annually in training incentives to small and medium sized business;

  - o $15 million annually to the community colleges to provide a training consulting service to business and industry which includes the delivery of training needs assessment and advice on how to meet training needs;

  - o $6 million annually for the Institute for Skills Training to provide learning materials developed in partnership with key sectors of the economy, to develop technology-based training programs, and to provide materials for the professional development of trainers.[6]

- The Ontario government has recognized the need for increased efforts to service the large numbers of adults (16.8% in 25-64 age in Ontario) who require basic instruction in reading, writing, and numeracy and has pledged additional funding for this purpose:

  - o $20 million annually to the community colleges for basic upgrading until 1991;
  - o $5 million annually to community literacy providers until 1991;
  - o wrap-around support services such as child care and transportation under the Ontario Training Strategy for those enrolled in basic education, if required;
  - o a grant of $1,900 to school boards for the equivalent of a full-time adult student enrolled in credit and basic education.[6]

- The Canadian Job Strategy announced in June 1985 demonstrates the Federal government's commitment to training in the labour market "to build a world class labour force." The six aspects of this program are expected to be operational until 1989. In 1986-1987, of $400 million allocated to Ontario, $136 will go to the community colleges for purchase of training services as follows:

  - o $28.3 million for apprenticeship training;
  - o $99.2 million for complete federal subsidy for college placements;
  - o $9 million to allow local industrial training committees to purchase training from the most appropriate provider either public or private.

  The remaining dollars will be spent on subsidies to employers for wages and course costs and to private training institutions.[7]

Educational Materials Market

- According to estimates prepared by the Non-Theatrical Film Industry Task Force, the total non-theatrical market in 1985 was between $25 and $33 million. Of this total, 30% to 40% or $7.5 to $13 million represented Canadian materials. This market may include educational/training films, videotapes, filmstrips, slide sets, videodiscs, and computer software designed for educational institutions, business and industry, the health and social service sector, community groups, special interest groups, sports and recreation, etc.[1]

- With revenues of $900,000 in 1986-1987, TVO accounted for an average 20% of sales to provincial departments of education with variances of 15% to 35%, depending on individual provincial budget allocations. This includes both broadcast and non-broadcast rights. Some of the major competitors in the Canadian market are

the NFB, TVO, Magic Lantern, Thomas Howe Associates Ltd., and International Tele-Film.[2]

- In Ontario in 1985-1986, the TVO VIPS program distributed 16,697 videotapes, 84% of which were distributed to schools, 8% to postsecondary institutions, 3% to libraries, and 5% to other institutions or associations.[11]

- According to the Province of Ontario Media Association, in 1985 school board film and video **budgets** ranged from $4,000 to $53,000 or from $0.46 to $3.21 per student. Fifteen of the 21 boards that responded to the survey stated that about 60% of their budgets is reserved for film acquisition but that in the next three years there will be a slight decrease in this proportion in favour of video acquisition.[3]

- Educational audiovisual **budgets** have been stagnant or decreasing over the last 10 years. In Ontario, this situation has been attributed in part to cutbacks from the Ministry of Education and shifts in spending particularly in favour of special education programs.[4]

- The **U.S.** educational materials market is approximately $2.8 billion. The ITV market in which TVO competes totals about $10 million. TVO's share amounted to about 20% or $2 million in 1986-1987. Out of a total of about 65, the top five competitors in the ITV market include the Agency for Instructional Technology (about a 40% share), TVOntario (20%), Great Plains National Instructional Television Library (19%), Western Instructional Television (less than 10%), and Educational Programming Service (less than 10%).[3]

- Educators consider the use of catalogues and listings to select educational materials too time consuming for the results obtained.[7] A need has been expressed for a comprehensive database combining descriptions and evaluations of educational products available in Canada, where to obtain them, and what conditions are attached to their use. In response to the need, a few initiatives have taken place such as the National Film Board's FORMAT and the University of Waterloo's Watmedia. However, users have identified weaknesses with the system including limited scope of and access to the databases. It is expected that in the next five years, efforts will be made to improve product information systems to users of educational materials.[1]

- Public **producers** and provincial educational broadcasters provide the bulk (60%) of Canadian educational materials. Users surveyed by the Non-Theatrical Film Industry Task Force indicated that they would like to draw on a larger amount of independently produced films and videos and that they would prefer using Canadian material when it is available and if it conforms to their curriculum-related needs. However, private producers are increasingly unable to produce material designed solely for the relatively small Canadian market, especially in competition with "destabilizing services" like TVO's VIPS. The trend is for

private producers and distributors to target a wider international, in particular, American market, by diluting references to Canadian places and culture.[1]

- According to the National Film Board, a consumer market for educational video distributed through libraries and video stores now exists in Canada.[8] However, expanded production for the home video educational market directly by the NFB and private producers and distributors will depend on the extent to which copyright laws can be unified, clarified, and enforced to prevent illegal copying and the extent to which support funding for production and distribution can be obtained from governments.[1] Nevertheless, the Educational Media Producers and Distributors Association of Canada (EMPDAC) expects that the total dollar sales of prerecorded videotapes by its members ($2,150,310 in 1984) will continue to rise as will rental income from videotapes ($444,990) and sales and leasing of rights ($713,717).[9] (The 1986 survey results are expected in May 1987.) EMPDAC represents approximately 90% of the educational commerical business generated in Canada. EMPDAC members sell classroom videos and films, documentaries, and short and animated films to public institutions, and to a lesser degree, private businesses and industry. Public buyers include provincial educational departments, colleges and universities, public libraries, museums and art galleries, and hospitals. Since the provincial education department market is shrinking, some EMPDAC members are exploring new venues (e.g., public libraries for home consumption) in an effort to diversify.[10]

- Sales of educational cassettes now represent 42% of sales of videotapes overall. It is expected that by 1990, video will predominate over 16mm film in the non-theatrical market.[1]

- In the United States there is a trend to growth in sales of non-movie, 'how-to' cassettes called Narrowcast cassettes. These are projected to be 60% of VCR sales by 1990 compared with 35% in 1986. Canadian projections are not available.[12]

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BROADCAST ENVIRONMENT

Major Challenges for TVOntario

The possibility of a new Broadcast Act that would legislate on the definition of educational versus provincial broadcasting and the relationship between the provinces and the broadcasters.

The steadily increasing direct competition with TVO because of new services and expansion of technological delivery. TV-5, TV Canada, and TeleCanada are of particular concern.

The trend towards decreased government spending for and ownership of public broadcasting in Canada, U.S., and Europe, as well as the CRTC emphasis on economic viability over public purpose in its decisions.

Increasing pressure for visible minority and women's participation in programming. This includes more presentation on screen, increased employment in the industry, increased access to television signals, and increased involvement in production and distribution of programming.

Broadcast Act/Caplan-Sauvageau[1]

- The underpinnings of the Canadian broadcasting system could change significantly in the next few years. Central to these are the Parliamentary Committee on Culture and Communications holding public hearings on the legislative aspects of the Federal Report on Broadcasting Policy and the possibility of a new Broadcasting Act shaped by recommendations from this Committee and from the Department of Communications.

- Of major concern to TVO in the Act is the role of education and the mandate of provincial broadcasting. New wording of the Act could either affirm the distinctiveness of **educational** broadcasting or introduce the generality **provincial** broadcasting and could introduce federal-provincial consultation to broadcasting. Other Caplan/Sauvageau recommendations that could impact TVO if integrated in a new Broadcast Act are:

  - o the nature of the arm's length relationship between the provinces and provincial broadcasters;

  - o the appearance of funding ministries at CRTC hearings for provincial broadcasters to pre-commit funding for license periods;

- approval by provincial authorities of the introduction of competitive signals into territory served by an educational broadcaster;

- the possibility of national networking by provincial broadcasters.

- The possible channels of TV Canada and TeleCanada would solicit TVO and la chaine cooperation and programming as well as present competition for audiences. TV-5, a European-Canadian French-language consortium is another potential competitor. Department of Communications supports these initiatives, despite lack of support from the industry including TVO.

- Other Caplan/Sauvageau recommendations that the Communications Minister Flora MacDonald has supported are more and better prime-time programming of Canadian origin, specific policies regarding the distinctiveness of Canada's French-language broadcasting system, government power of direction over the CRTC on broad policy questions and better access to the broadcasting system for underserved groups.[2]

- The possibility of a federal election makes the completion of any legislative changes uncertain.

CRTC[1]

The CRTC is seen as the consistent powerhouse in broadcast policy, partly due to ministerial changes and reports left unimplemented by the Department of Communications. The CRTC reviews broadcasters' licenses, imposes conditions of license to regulate Canadian content, social responsibility on violence and sex role stereotyping, and examines network and specialty policies and service applications for more Canadian services.

- In 1987, the CRTC will be looking at tiering, linkage and some 20+ applications for specialty television services. Pay-per-view has been rejected for Canada in the present.[3]

- In 1986 the new **regulatory environment for cable** set by CRTC included streamlined rate setting structures, greater options for cable carriage once the basic provision is met; advertiser-supported, non-programming services allowed beyond the experimental stage and now without regulation and limited advertising on community cable. The last provision is expected to result in better community programming and better access to community channels. The CRTC will be monitoring the effects of these changes in the next two years and if the results are not satisfactory, they may reconsider this regulatory orientation.[3]

- This is what the CRTC has labelled "deregulation," but re-regulation or **self-regulation** seem more accurate. In this, responsibility and opportunity for self-regulation are delegated

to the industry and its representative associations. The legality of this delegation and the ability of the industry associations to enforce their self-regulatory codes of ethics are under question.

- Many of the new applicants for speciality services and existing services have asked for **basic cable carriage.** This would affect priority carriage rules impacting TVO and la chaine if we agree to out-of-province carriage.

- **Canadian content** regulations are being intensified and the standards of measurement, quantitative and qualitative are increased. Broadcasters are all expected to maintain Canadian content levels of 60% overall. Public broadcasters must maintain 60% between 6:00 pm and midnight whereas private broadcasters can run 50% in this "prime time" period. (By 1990, TVO will be expected to broadcast a minimum of 70% Canadian content overall.) The Commission can vary the requirements above the minimums by condition of license. Ethnic and remote stations' levels are set separately from the 60% rule.

- In 1985, CRTC published its **Ethnic Broadcasting Policy** to encourage the broadcast of programming directed at groups other than English and French speaking and Native Canadians. Pressure from minority groups is increasing for wider access to air-time.

- Prior to a federal election, there is a possibility of major federal government initiative in defense of **minority interests** which will filter through the CRTC and the broadcasters they regulate.[4]

- The CRTC will continue to impose as a condition of license that broadcasters adhere to industry guidelines regarding **sex-role stereotyping.** The issue will be of continued importance and scrutiny. In 1988 there will be a CRTC-industry content analysis of programming, to compare with 1984 survey. Licensees, like TVO, will be expected to demonstrate not only sensitivity but proof of improvement in their portrayal of women at license renewal hearings in five years.

- The **economic viability** issue is the determining factor in the CRTC granting of licenses. The larger structure of Canadian broadcasting is driven by economics, by viability, by markets and consumers. This is getting the CRTC attention. The responsibility for public purpose, socially conscious, minority interest broadcasting may fall increasingly on public broadcasters (and community channels). As minorities become more effective in bringing their demands forward, these pressures may increase.

- Predictions by the research group of Harrison, Young, Newell and Pesonen suggest that cross ownership of media, cable plus TV plus radio, now exists in almost all major markets and is no longer a reason for the CRTC to turn down an application for purchase. Although the CRTC is unlikely to directly negatively affect TVO in the next five years, TVO will feel the impact of CRTC decisions. Significant audience levels will become harder and harder to obtain as the CRTC grants more and more commercial TV licenses.

TVO's financial resources will become smaller and smaller in comparison to the commercial competition which will be made up of larger and larger broadcasting units. The research group's conclusion is that TVO's management will find increased levels of management expertise at work in the commercial sector. They will be themselves hard pressed to "out-manage" their competition; a characteristic which is necessary if TVO is being "out-spent" by the competition.[4]

- TVO and other public broadcasters must keep their issues and perspectives strongly before the regulatory bodies between license renewals.

The Industry

- In 1986, 98.4% of Canadian households had a television; 91.4% with at least one colour TV. Cable subscription was about 70% in Ontario. Converters were present in 68% of cable subscribers homes in Ontario in 1984.[5]

- Satellite delivery of U.S. stations, an increasing number of satellite dishes, increase in CANCOM service, cable penetration and growth, the VCR and an increasing number of broadcasters have fragmented the Ontario viewing audience in the past decade. This trend will increase as this summer, the CRTC considers the more than 20 specialty channel applications with many of them requesting carriage on basic cable. These applications will include TV Canada and TeleCanada. Also, the Canadian Cable Television Association is applying to the CRTC to take over the parliamentary channel and run it 24 hours a day with a variety of public affairs programs as a nation-wide community programming service. As new and old services look for audiences to impress advertisers or to entice subscribers, TVO's affluent and educated audience is a prime target and we can expect to see more look-alike programming and services and more competition for acquisitions.[6]

- An alternate opinion from the research group of Harrison, Young, Pesonen and Newell is that as viewing options increase, viewers become more discriminating rather than more fragmented. The winners in this can be music, sports, and educational channels. There may be creation of station loyalty, similar to radio, rather than the current pattern of TV program loyalty.[4]

- The CBC has received a CRTC license renewal that recommends 90% daily average Canadian content, increased prime time Canadian drama to 10 hours a week, increased attention to ethnic minorities, adherence to sex-role stereotyping guides, more native programming in the North, program adjustments to reflect the needs of francophones outside Quebec and elimination of advertising on children's programming. At the same time, the federal government has made a further reduction in CBC's budget.

- Independent stations have formed ad hoc networks to improve their economies of scale for programming purchases. Announcements of a network licensing hearing by the CRTC chairman and recent decisions awarding CKVU Vancouver to CanWest Communications Corp lay some groundwork for a CanWest-Global national network.

- On the other hand the recent decision awarding an Ottawa independent license in competition with a CTV affiliate to Baton Broadcasting, which already owns three CTV affiliates, has serious implications for both CTV and the likelihood of another network nucleus.

- A new PBS station from Buffalo will go to air on May 13, targetted at a general adult audience. From 3:30 to 11:00 pm, it will broadcast both duplicate and different programming from the existing Channel 17. CRTC must decide on cable carriage. So far the CRTC has denied carriage for border stations on air after 1986.[8]

- The 'people meter' will be in 2,300 Canadian households by Fall 1988 to track audience presence throughout programs and commercials. The results will eventually be available overnight and related to product purchases as well.[9]

- The private broadcasting emphasis will be on half-hour situation comedies, action/adventure and movies, with lessening amounts of the more expensive quality entertainment such as Hill Street Blues, L.A. Law, and Moonlighting.[4]

- As the population ages and if their viewing patterns remain similar, then an increasing number of people will be interested in sports, news, and information programming.[10]

Other Broadcasters

- In the U.S., as of March 31, 1986 there were 1,641 television stations (not re-broadcasters), 947 commercial, 301 non-commercial, and 293 low power. As of December 31, 1985 the top five U.S. television proprietors were Capital Cities Communications (ABC), General Electric (NBC), CBS, Tribune Broadcasting, and 20th Century Fox. Private broadcasting is suffering from reductions in advertising revenue and buy-outs by large, non-broadcast business conglomerates, underlying the concept of broadcast as <u>business</u>.[11]

- There is continuing U.S. presidential pressure to drastically reduce federal spending for public television. State governments are also allocating less money and seriously endangering the future of PTV in some states. Donations and underwriting are decreasing as well.

- As one response U.S. public television is looking to the international marketplace, particularly for coproductions and cofinancing, for increased product sales (now about $50 million gross) and for involvement in developing countries with

programming, professional training, and technical assistance. This may mean a centralized PTV sales office and a consortium for arranging cooperative ventures.[12]

- PBS has begun to coordinate instructional TV nationally, serving as a clearinghouse and a national voice.[13]

- Over the next few years, PBS is expected to maintain its market share of 5%, despite competition and technologies.[14] In Neilsen rating period of January 12-18, 1987, 103.3 million people watched public television in U.S. The average PBS household watches an average of 220 minutes per week, 116 minutes in prime time.

- The European television broadcast environment was relatively stable with almost exclusive public control until about 1980. The influences for change were the public demand for expanded viewer choice, demand for commercialization, privatization, development of cable, and trans-European satellite programming services. Italy and France are undergoing the most dramatic restructuring and privatization, while the BBC is increasingly assaulted by the government, as well as chronically underfunded.

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GOVERNMENT ENVIRONMENT

Major Challenges for TVOntario

Federal and provincial employment and pay equity legislation.

Best use of Telefilm.

Possible roles in federal and provincial training and employment programs.

Implementation of Ontario's French Languages Services Act.

Canada

- The final resolution of the **free trade** issue is still under negotiation. However, vocal lobby groups may have succeeded in diffusing the impact of free trade on television broadcasting. It has not been a major item on the bargaining table--the Canadian content regulations, simultaneous substitution of Canadian signals for American, and the tax protection for advertising are unlikely to be changed. In case of a free trade agreement, increased government funding for public broadcasting may be one response to perceived threats to Canadian culture.[1]

- In mid-1987, the federal **Employment Equity Act** will be in place. Any federally-regulated enterprise that employs over 100 people or any contractor bidding on government contracts at or above $200,000 will have to prepare and implement a plan with goals and timetables to ensure that women, aboriginal peoples, persons with disabilities, and people belonging to visible minorities achieve proportionate representation. Annual reports will be required, beginning in June 1988, on the representation, hiring, promotion, and termination of people in these designated groups. In order to access Telefilm and as a federally-regulated agency, TVOntario may be covered by this legislation.[2]

- A recent Senate Finance Committee report recommended that the federal government should turn the responsibility of **funding university and college education** over to the provinces. This would be done by transferring tax points so that the provinces collect the tax money directly. However, educators felt that the balance and tension of having two levels of government involved was beneficial. In fact, more federal coordination and national objectives for universities were seen as important. Transfer payments for 1985/1986 were $4.5 billion--$2.3 billion in cash and $2.2 billion in tax transfers.[3]

- The **Canadian Jobs Strategy** demonstrates the federal government's understanding of changes in the working world and has made a commitment to identifying and training for necessary new work skills equitably for all Canadians, to addressing local and regional needs, to grassroots input, to encouraging new kinds of work, and to supporting training partnership with businesses, provinces, and communities.[4]

- In 1983, following the Applebaum-Hebert Report of the Federal Cultural Policy Review Committee, **Telefilm Canada** was created to support independent Canadian production of programs guaranteed of prime time broadcasting on public or private television. Since 1985, the provincial broadcasters have also been allowed and encouraged to involve themselves in joint ventures with independent producers. At the same time, the categories of programs funded were broadened to include documentaries as well as drama, children's, and variety programs.

- Financed indirectly by taxes on cable services, the **Telefilm Broadcast Fund** will reach $60 million in 1987/1988. Telefilm's current mandate expires in 1988. A $300 million grant will extend funding for another five years. In light of the modest funding from Canadian broadcasters (which provided 15% of independent production costs in 1985/1986) and the limited revenues from foreign sales (20%), the need for ongoing maintenance of a Broadcast Fund to support independent production is clear. The Caplan-Sauvageau report confirmed the major ongoing role Telefilm can play in promoting independent production of Canadian programming, particularly in prime-time drama.

- At the same time, Telefilm is showing growing interest in developing a solid Canadian **distribution sector**, which will in turn influence program production. Funding support from the extra $30 million allocated for feature film production last year requires involvement of a Canadian distributor. Development of Canadian distributors who know where markets can be found is expected to foster the long-term possibility of a self-sustaining production industry. However, as Telefilm's interest in markets grows, producers become concerned with what is perceived as a growing contradiction in the agency's mandate: is it cultural or industrial?[6]

- Telefilm is also increasing its role in encouraging **international partnerships**. Twinning international coproductions, by considering two programs as one venture when applying Canadian criteria for funding, broadens the kinds of international projects that can be supported and simplifies the production process for international efforts.

- It is considered that the **federal government** is happy with its **relationship** to Telefilm which reports to the Department of Communications. Unlike the arms-length relationship it has with the CBC, the government is able to issue policy directives regarding the types of programs that receive Telefilm funds.

- With the development of Telefilm, both public and private Canadian broadcasters have changed their relationship to independent producers. Increasingly in-house productions are declining, making way for **coproductions** and **independent productions.** As independent producers grow stronger, it is hoped that more Telefilm money will go to the regions who now feel that they are subsidizing Toronto and Montreal producers through the cable taxes they pay. As a result, new ways of producing more, smaller regional programs will be found. Additional changes anticipated in the next five years include the possible introduction of new tax incentives to encourage private investment. Also of interest to the private producers are improvements in the business practices of major public sector organizations (NFB, CBC, TVO, etc.).[7]

- Federal and provincial officials have promised to set up a national **child care program** by June 30, 1987. The House of Commons Committee proposed a $600 million package with 70% of this money going to parents in the form of tax credits (up to $900 per child in licensed day care and much smaller credits for children at home or in unlicensed care). The remaining 30% would be spent primarily as incentives to encourage the provinces, employers, and private entrepreneurs to set up more day care centres. Over the next five years, parental benefits (replacing maternal benefits) would be extended to 26 weeks from the current 15 weeks.

- On February 20, 1987 new interim control measures were imposed to structure and regulate the entry to Canada of people claiming refugee status from 18 countries. The countries of origin include El Salvador, Guatemala, Iran, Sri Lanka, Afghanistan, and countries in the Sino-Soviet bloc. A wave of refugees from Central America early in 1987 was the catalyst for these changes. New **immigration** legislation is expected in the near future.

- It is expected that new **copyright legislation** will be tabled by the end of April 1987 and this will have to be analyzed for its implications for broadcasters and educators.

Ontario

- Ontario will increase its spending on **French courses** at post-secondary institutions (six colleges and four universities) from $24 million annually to $42 million annually over the next five years.[1] This is to increase the number of credit courses offered in French to francophones--not French language training. Task forces have been set up to determine development priorities.

- The educational goals outlined in the **Speech from the Throne** in April 1986 have all been funded--postsecondary centres of excellence, development of skills, promotion of literacy, improvement of access to education, programs to help the shift from school to the work force, and increases in science and technology education.[4]

- The **Ontario Training Strategy, Futures and Summer Youth Employment** programs had $275 million in funding for 1986/1987. **Futures** is aimed at people under 25 providing various combinations of subsidized work experience and education; the **Training Strategy** (budgeted at $100 million annually for the next five years) is aimed at training in industry and the continued training of those presently employed, with some funding for literacy. These programs are designed to encourage the private sector's participation in training. The Ontario government has accused the federal Canadian Jobs Strategy of undercutting the provincial college system, and of spending less than was allocated for Ontario programs. Nevertheless, a federal-provincial agreement on training was signed in March 1986.[5] This will make $500 million available for training through Ontario's colleges over the next three years, shifting the emphasis of the federal Canadian Jobs Strategy from job creation to training and emphasizing access for special needs groups.[6]

- With the passage of Bill 75 in July 1986, **francophones** in Ontario are guaranteed representation on **school boards** across the province that operate French language schools or classes. By 1988, francophone trustees will be elected to French-language sections on local school boards.[6]

- The extension of **separate school funding** (Bill 30) became law in June 1986. Roman Catholic school boards will be funded equally with those of the public system. All secondary school students will have full access to both public and separate high schools and displaced teachers will be placed in the separate system or retrained. The denominational hiring rights of separate high schools will be eliminated after a ten-year transition period. The Act's constitutionality is currently being challenged before the Supreme Court.[6]

- Canadian **natives** in reserve communications are assuming increasing control of their children's **education.** Federal supervision is diminishing as a growing number of bands and native organizations work directly with the provincial Ministry of Education to shape curriculum and programs that meet their needs and circumstances. An increasing number of reserves are adding Grade 9 and 10 (and a few Grades 11 and 12) to their schools and more graduates are expected to enter postsecondary institutions. As well, recent curriculum guidelines in History, Geography, and English for all Ontario students are reflecting a growing awareness of native life.

- The strategic plan for the **Ministry of Culture and Citizenship** outlined the major factors in their planning as the increasing impact of immigration on Ontario's population, growing demand for quality cultural and multicultural facilities and services throughout Ontario, particularly for natives, francophones, and northerners, the impact of technology on the cultural sector and the continuing need for fiscal responsiblity and accountability. More inter-Ministry partnership, provincial equality and access,

targetted programs for special groups, and marketing of Ontario cultural products are some of MCC's responses over the next five years.

- In November 1985, the **Ontario Film Development Corporation** was created to support film and video production with funding of $20 million over three years to strengthen financing, marketing, and training.[6]

- Ontario Bill 154 is designed to eliminate **gender-based pay discrimination** in the private and broader public sectors. Within one year of the Act's passage, organizations including TVOntario will be required to design and post plans to address wage disparities by phasing in "equal pay for work of equal value." Skill, effort, responsibility, and working conditions are the criteria used to determine job value. If no objection to the posted plan is filed with the Pay Equity Commission, the plan is considered acceptable. Within two years, public sector employees must begin making annual adjustments towards pay equaity equal to at least 1% of their payroll in the previous year. Bill 105 is similar legislation for pay equity in the Ontario Public Service.[2] The Employment Equity Incentive Fund for the broader public service (school boards, universities, colleges, hospitals, and municipalities) has been given $12 million in funding for the next five years.[6]

- The **French Language Services Act** (Bill 8) became law in November 1986, guaranteeing any person or corporate entity the right to receive Ontario government services in French in designated areas of the province. Institutions and non-profit corporations which receive government funding may also be designed to provide services in French. By 1990, all statutes will be versioned in French and all legislation after 1991 will be enacted in both languages.[6] The legislation also designates those areas where cable must carry TVO's la chaine on channels 2 through 13.

- **Innovation Ontario Corporation**, with $8 million funding for 1986/1987, is offering financial and other assistance for the development of technological products. As well, the Ontario Development Corporation will guarantee bank loans for small firms, especially in Northern and Eastern Ontario.[3]

- The development of **Northern Ontario's economy** is a high priority, including programs in road construction, health care, tourism, resource management and exploration, decentralization of government activity, and distance and postsecondary education.[6]

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Major Challenges for TVOntario

The development and adoption rates of technology in the next five years are uncertain and consequently this paper contains a number of contradictory statements. Rather than attempt to reconcile them or choose one 'right' answer, the various opinions and the sources of these opinions are presented.

However, out of these variable views, a number of significant developments for technology for the next five years emerge:

- Cable will remain the leading distributor of television programming to the home.
- Two new Canadian satellites will replace the current Anik C series.
- The mix of analog and digital production technology will become increasingly digital in the next five years, but purchasing of digital television sets will be slower.
- Stereo sound is being used increasingly for production and TV--15% or more of TV sets will be stereo-ready by 1992.
- Major advances in distribution technology are unlikely in the next five to ten years, but perhaps fibre optic networks and high quality television and radio broadcast systems will be ready by the year 2000.

Satellite

- Two Anik E dual-band (i.e., both the high-powered Ku and the lower powered C band) satellites are to be launched by 1989 with the equivalent of 56 television channels to replace all five Telesat satellites. They will provide full national Ku (14/12 GHz) band service.[17]
- At present, **Direct Broadcast Satellites** (17/12 GHz) is a dismal failure in the U.S. and while there is some expectation that a different variation of direct satellite delivery may re-emerge--using intermediate power--it is doubtful that any consumer-targeted service will survive. In Canada, quasi-DBS (14/12 GHz)

is not expected to effect urban areas but will allow rural regions to gain access to an increased variety of programming--probably mostly foreign.[5]

- The C-band (6/4 GHz) direct-to-home satellite technology continues to expand at 40,000 installations a month in North America. The TVRO installation is now $1500-$3000 (Cdn) and can receive up to 40 mass appeal programming channels and 60 or so with specialized programming, although some are now scrambled.[8]

- The Ku-band technology is superior because of lack of microwave interference. The scrambled C-band signals may also increase pressure for Ku-based direct-to-home distribution.[8]

- There will be a slow conversion from C to Ku-band over five years.[9]

- The V-sat (**very small aperture terminal**) has major potential for data distribution in business for privately owned national/regional multi-branch operations, mainly in the U.S. This may lower costs and raise access possibilities for shared public use in the next few years.[9]

Cable

- Cable in May 1986 was in 70% of Ontario households. This represents close to 80% in urban areas. It would seem that for the moment, cable growth has stabilized--at least until further investment is made. Such investments are expected within a ten year time frame in the areas of audio cable carriage systems and decoders in response to the increasing demand for stereo and enhanced television transmissions.[5]

- It is unlikely that any new forms of signal distribution will pre-empt cable's predominant position over the next five years. Home dishes will if anything decrease in numbers from their current very low penetration as Pay services scramble and far more cost effective remote and rural "mini-cable" systems are established.[2]

- In 1990, Ontario cable will stand at about 79% and TVO's weekly audience of 2+ population will move up to around 30% of the population (from present 24%) as a direct result of the higher cable levels.[2]

- Cable penetration should reach 83.8% nationally by 1996 with 7.9 million households connected.[15]

- The cable industry plans to develop industry options for retiering cable services. All services provided by cable could be realigned as part of a retiering program, which could affect current priority carriage regs.[6]

- Various areas within the cable operation are expected to grow--channel capacity, converter penetration and projected capital expenditures, but many of the remaining areas are not. By 1990,

cable operators predict pay-per-program, video downloading, local advertising inserts and third-party access as contributing to their profit. Non-programming services are classified ads, security and alarm systems, business and information data, also some transactional service by 1990. Expected increase of channels from 27 to 41 by 1990. Most of these changes would be in larger cable systems.[6]

- The $10.6 million capital grants program (Television Extension in Northern Ontario) to extend cable service or LPRTs to "non-viable" communities would extend broader television choice over the next three years to as many as 180 additional communities with 60,000 people.

- Home shopping channels are a growth market in U.S. Over $250 million in orders in 1986 projected to $3 billion by 1990. For cable, this could outstrip advertising as revenue producer.[7]

- **Fibre optics**, the ultimate in wide band capacity, will remain in the next few years only a promise of better things to come. Costs have proven to be the major obstacle in the introduction of fibre optics--copper wire is still less expensive so replacement installation plans have not enabled the changeover wiring that might have been hoped for 10 years ago. It would seem logical that eventually cable would simply lease lines in urban areas from telephone companies but this presupposes that cable has no interest in distributing anything other than broadcast programming.[5] Telecom is predicting completion of a cross-country fibre network by end of the 1980s.[16]

- The star-switched fibre optic loop for premium channel distribution appears quite attractive as a means of ensuring a service of high technical quality. However, a widespread move to this does not appear to be on the horizon until perhaps the turn of the century.[8]

- **Integrated Services Digital Networks** will over the next five to ten years begin to appear. ISDN will allow for end-to-end digital connections and increased flexibility in provisioning and configurations of networks. The introduction of such systems will likely impact upon end-users within a five year time frame and relate to the upgrading of equipment. The telcos are best positioned to act on this technology as Telecom Canada for example has already moved into this market with the introduction of its Megaplan Service. Although this is not full ISDN service, it represents the commitment made to this technology.[5]

VCRs

- As of Winter 1987, BBM reports that 49% of people in Ontario live in households with a VCR.

- VCRs have had little impact on traditional TV viewing patterns in the past, present, and will have little impact five years from now.[2]

- At this point in time, the proportion of TV weekly hours of tuning that will be lost due to VCR rented movie usage will only be about 1%. Even at 100% household penetration, VCRs will erode traditional hours of TV viewing by a very small (2%) degree.[2]

- Hollywood made more money in video than films--80 million pre-recorded video cassettes rentals worth $2.5 billion. Retail sales of these tapes are expected to go from $2.1 billion in 1986 to more than $4 billion in 1990.

- Growth is expected in sales of non-movie videos in Canada but there is a need for copyright law clarification and enforcement. Presently there is a $500 million market in rental and sales, but non-movie videos are a small percent of this.[4]

Digital

- There will in the next five years be an increasing mix of digital and analog equipment as digital technology drops in price and is made more available. Within the next three years, adoption of an all digital production studio will be viable. However, due to the capital investment that will be required to accomplish this, it is unlikely that television will move totally to digital technology before the year 2000.[5]

- Over the next five years, $100 million will be spent by Canadian broadcasters on re-equipping with digital.[12]

- Due to high prices, digital or "smart" TVs are not expected to have a high penetration rate. However, if they do become popular over time, program formats may evolve which allow viewers to use special features, such as freeze frame, zoom and second channel as box insert, to "participate" in the programming.[1]

- By 1990, smart sets to be in widespread use.[10]

High Definition Television

- Digital signal processing circuitry will so noticably improve picture quality that entry of HDTV will be delayed. The process of introduction will be gradual and early programming will likely be on large screens in auditoriums and video theatres. HDTV will probably first enter the home through VCRs or discs.[8]

- Once a large enough base of HDTV-capable receivers exists, electronic distribution will start, most likely as pay-per-view. Cable systems, in competition with or aided by satellite systems will be capable of carrying one or two HDTV channels along with multiple channels of improved definition NTSC-bandwidth signals. Wholesale conversion to HDTV is not likely before 2000.[8]

- The prediction for high definition set penetration is 10% in five years, but this is dependent on broadcasters' plans as the current penetration is 0%.[2]

- High definition broadcast (not necessarily completely digital) services will achieve between 14-30% penetration of Canadian homes by 2000.[12]

- HDTV may become a production medium, it will then be converted to NTSC for broadcast for the rest of the decade.[1]

- The CBC is currently shooting the first drama series in the world in HDTV.[13]

Stereo Sound

- Consumers are already purchasing receivers and add-on adapters allowing the reception of stereo television sound. Statistics Canada estimated 50,000 stereo-ready sets were sold in 1985. The next year, this number jumped to 200,000 and in 1987 it is expected to near 400,000. Predictions are that the growth curve for television stereo sound will follow that of the introduction of colour television into Canada.[5]

- It is expected that American networks will move rapidly into stereo television broadcasting. And while the costs for cable and/or broadcasters to upgrade their equipment is not negligable, competition and audience demand will push stereo acceptance forward.[5]

- Presently about 5% of TV sets in use are stereo, with 15% predicted for five years from now. This stereo set penetration will not make a significant difference in viewing patterns.[2]

- By 1990, one in four Canadian households will have a stereo-capable TV set (now about 100,000 sets) and 15 U.S. TV stations close to the border will be beaming their stereo signals into Canada.[8]

Compact Discs, Optical Discs

- Compact discs seem at the moment to be a short-lived discovery now that digital tape has made its appearance but the durability of the disc will survive and maintain its market niche with the audiophile.[5]

- Optical discs have immense storage capacity (100,000 typewritten pages or 550 megabytes), are reproduced and distributed easily and quickly, and are searched quickly to cover a specific piece of information. The recommended educational applications are for test banks and databanks of information on postsecondary institutions (similar to MOE's SGIS database).[11] Optical discs will continue to grow in popularity as more applications are found and technological advancements drop the price of the equipment to the consumer.

- The analog videodisc has found some acceptance in training and point-of-sale marketing with 100,000 players in U.S. business and education.[7]

- Storage of digital video on discs is still a major technological challenge that won't be solved by end of decade.[9]

Format

- The continuing erosion of 2" and 1" formats by 3/4" and 1/2" erosion is simply a given. As digital technology moves ahead, more and more compact work units are becoming available and there will be increasing amounts of production equipment,[5] mixing facilities and post production work with smaller formats.

Videotex/Teletext

- Neither the Corporation for Public Broadcasting[1] nor Caplan-Sauvageau[10] see any major growth in teletext or videotex in the next few years.

- Some U.S. phone companies are moving into the field with home banking, special interest information, plain text and simple technology.[7] France's Minitel has been successful with this approach.

Vertical Blanking Interval

- One application of the Vertical Blanking Interval relates to carriage of captioning for the hearing impaired, another to the carriage of stereo television. The immediate future will see these uses expanded somewhat but outside of stereo sound, the VBI will remain a little used technology for at least the next five years.

- The estimated total number of decoders for hearing impaired is 8,000-10,000 in Canada with 5,000-6,000 in Ontario. The expected sales are 1,000-1,500 a year in Canada with no particular acceleration foreseen.[14]

Computers

- Inexpensive computer graphics are a whole new field opening up for smaller stations and producers as technological advancements make available easy-to-use computer graphic facilities. It remains doubtful that this development will see independents investing in such equipment but as graphic studios outfit themselves with new software, the cost of buying attractive graphics becomes most appealing.[5]

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